

REMARKS

The applicant has carefully considered the official action dated August 4, 2006, and the references it cites. In the official action, claims 72, 74, 75, 77, 79-82, 84, 92, 96-98, 101, 103, 104, 108, and 109 were rejected under 35 U.S.C. § 102(b) as anticipated by Jeuniaux et al. and claims 38, 39, 41-47, 49-55, 57-60, 73, 76, 78, 83, 93-95, 99, 100, 102, 105-107, and 110-112 were rejected under 35 U.S.C. § 103(a) as unpatentable over Jeuniaux et al. In the official action, claims 113-117 were indicated as allowed. Accordingly, claims 113-117 will not be discussed further herein.

By way of this response, the applicant has amended claims 72, 92, and 101 and added new claims 118-131 to clarify the scope of protection sought. No new matter has been added. Accordingly, claims 38, 39, 41-47, 49-55, 57-60, 72-84, and 92-131 are pending in this application, of which claims 38, 46, 54, 72, 77, 92, 101, 109, 113, 118, and 126 are independent. In view of the foregoing amendments and the following remarks, the applicant respectfully traverses the rejections and submits that all pending claims are in condition for allowance. Favorable reconsideration is respectfully requested.

The Rejections Under 35 U.S.C. § 112, First Paragraph

As an initial matter, the examiner made a § 112, first paragraph rejection in the final official action dated January 25, 2006, to which the applicant responded on May 3, 2006. The applicant respectfully requests that the examiner acknowledge the applicant's response to the § 112, first paragraph, rejection and affirmatively withdraw this rejection.

The Rejections Under 35 U.S.C. § 102(b)

The applicant respectfully submits that independent claim 72 is allowable over the art of record. Independent claim 72 is directed to a system for conditioning a moving material that includes, *inter alia*, a first sensor corresponding to a first longitudinal zone of the moving material and separated by a first distance from a surface of the moving material, a second sensor corresponding to a second longitudinal zone of the moving material and separated by a second distance from the surface of the moving material, and a controller communicatively coupled to the first and second sensors and configured to compare the first distance to the second distance. The examiner contends that calculations described by Jeuniaux et al. to obtain a curvature of a material inherently include a comparison of a first distance to a second distance based on readings of heights y_a , y_b , and y_c from three sensors (5, 6, 7). Assuming, *arguendo*, that the Jeuniaux et al. calculations do inherently describe compare a first distance to a second distance based on heights y_a , y_b , and y_c obtained via the three sensors (5, 6, 7), the three sensors (5, 6, 7) correspond to a single longitudinal zone. See Jeuniaux et al., FIGS. 1 and 2. Therefore, any calculations performed using values from the three sensors (5, 6, 7) do not constitute a first sensor corresponding to a first longitudinal zone of the moving material and separated by a first distance from a surface of a moving material, a second sensor corresponding to a second longitudinal zone of the moving material and separated by a second distance from the surface of the moving material, and a controller communicatively coupled to the first and second sensors and configured to compare the first distance to the second distance.

Although Jeuniaux et al. describe placing several telemeters (8) across a width of a material to determine a planarity index (P_m) of each fiber of the material, Jeuniaux et al. do

not describe comparing a first distance corresponding to a first longitudinal zone to a second distance corresponding to a second longitudinal zone. The examiner contends that Jeuniaux et al. inherently perform comparisons through the calculations described at col. 5, ll. 50-65 and that “representing the change in the measured height of the fiber over the portion of the strip 3” (col. 5, ll. 56-58) constitutes a comparison. Assuming, *arguendo*, that the examiner is correct, the applicant respectfully submits that the examiner’s interpretation of Jeuniaux et al. nonetheless does not constitute comparing a first distance corresponding to a first longitudinal zone to a second distance corresponding to a second longitudinal zone even when considered in combination with the Jeuniaux et al. description of placing several telemeters (8) across a width of a material to determine a planarity index (Pm) of each fiber of the material. The examiner’s interpretation of Jeuniaux et al. is based on the Jeuniaux et al. description of determining an elongation ratio (Pm) based on a single fiber corresponding to one longitudinal zone.

“Knowing the time interval, between each sampling, as well as the speed $V(t)$ of the strip 3 between these samplings, the file of measurements makes it possible to obtain, from the heights y_i , as in the known methods of measuring the shape and the planarity of a fiber, a function $y=f(l)$ representing the change in the measured height of the fiber over the portion of the strip 3...” *Jeuniaux et al.*, col. 5, ll. 52-56

Thus, even if the examiner’s assertions were correct that Jeuniaux et al. describe comparing distances measured by the three sensors (5, 6, 7), such comparisons are made between distances corresponding to the same longitudinal zone (i.e., the same fiber) over which the sensors (5, 6, 7) are placed.

The applicant further submits that the Jeuniaux et al. description of calculating a planarity index (P_m) does not constitute comparing a first distance corresponding to a first longitudinal zone to a second distance corresponding to a second longitudinal zone. Jeuniaux et al. describe determining the planarity index (P_m) for a fiber based on an elongation ratio (A_m) of the fiber and an elongation ratio (A_c) of a central fiber using the equation $P_m = (A_m - A_c) / A_c$. *Id.*, col. 6, ll. 60-67. However, the equation $P_m = (A_m - A_c) / A_c$ does not constitute comparing a first distance corresponding to a first longitudinal zone to a second distance corresponding to a second longitudinal zone because the parameters used by the equation are elongation ratios, which are not first and second distances as recited in claim 72. Therefore, Jeuniaux et al. do not teach or suggest a first sensor corresponding to a first longitudinal zone of the moving material and separated by a first distance from a surface of a moving material, a second sensor corresponding to a second longitudinal zone of the moving material and separated by a second distance from the surface of the moving material, and a controller communicatively coupled to the first and second sensors and configured to compare the first distance to the second distance. Accordingly, the applicant respectfully submits that independent claim 72 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 77 is also allowable over the art of record. Independent claim 77 is directed to a method of leveling strip material and recites, *inter alia*, moving the strip material past a first sensor associated with a first longitudinal zone ... and a second sensor associated with a second longitudinal zone ... and generating an electrical signal to cause an adjustment of a load applied to the strip material in response to comparing the first and second wave height values. The first wave height value corresponds to the first longitudinal zone and the second wave height value corresponds to the second longitudinal zone. Jeuniaux et al. do not teach or suggest comparing a first wave

height value corresponding to a first longitudinal zone to a second wave height value corresponding to a second longitudinal zone for at least the reasons discussed above in connection with claim 72 and, thus, Jeuniaux et al. do not teach each and every element of claim 77. Accordingly, the applicant respectfully submits that independent claim 77 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 92 is also allowable over the art of record. Independent claim 92 is directed to an apparatus to condition a material that includes, *inter alia*, a first sensor corresponding to a first longitudinal zone of the material and positioned to measure a first height value of a surface of the material, a second sensor corresponding to a second longitudinal zone of the material and positioned to measure a second height value of the surface of the material, and a controller configured to generate an electrical signal in response to a comparison of a first height value and a second height value to condition the material. Jeuniaux et al. do not teach or suggest a comparison of a first height value corresponding to a first longitudinal zone and a second height value corresponding to a second longitudinal zone for at least the reasons discussed above in connection with claim 72, much less a controller configured to generate an electrical signal in response to a comparison of the first height value and the second height value to condition the material. Thus, Jeuniaux et al. do not teach each and every element recited in independent claim 92. Accordingly, the applicant respectfully submits that independent claim 92 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 101 is also allowable over the art of record. Independent claim 101 is directed to a method of modifying a condition of a material and recites, *inter alia*, obtaining a first deviation value of a first wave height

associated with a first longitudinal zone of the material..., obtaining a second deviation value of a second wave height associated with a second longitudinal zone of the material..., and adjusting a load... based on a comparison of the first and second deviation values. Jeuniaux et al. do not teach or suggest a comparison of a first deviation value of a first wave height of a first longitudinal zone and a second deviation value of a second wave height of a second longitudinal zone for at least the reasons discussed above in connection with claim 72. Therefore, Jeuniaux et al. do not teach each and every limitation recited in independent claim 101. Accordingly, the applicant respectfully submits that independent claim 101 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claim 109 is also allowable over the art of record. Claim 109 is directed to a method and recites, *inter alia*, adjusting a load applied to a material in a second zone to condition the material in a first zone. Jeuniaux et al. do not teach or suggest adjusting a load applied to a material in a second zone to condition the material in a first zone. Instead, Jeuniaux et al. merely describe that data can be used to remedy defects in the strip (3). *See Jeuniaux et al.*, col. 3, ll. 1-4. Jeuniaux et al. also describe that planarity defects can be corrected using a leveler. *See Id.*, col. 1, ll. 31-34. However, Jeuniaux et al. do not describe how the defects are remedied. In contrast, claim 109 recites adjusting a load applied to a material in a second zone to condition the material in a first zone. Accordingly, independent claim 109 and all claims dependent thereon are in condition for allowance.

The Rejections Under 35 U.S.C. § 103(a)

The applicant respectfully submits that independent claim 38 is allowable over the art of record. Independent claim 38 is directed to a method for modifying a condition of a

material and recites, *inter alia*, determining a difference between a first wave height of a material in a first longitudinal zone and a second wave height of the material in a second longitudinal zone. The applicant respectfully submits that Jeuniaux et al. do not describe determining a difference between a first wave height of a material in a first longitudinal zone and a second wave height of the material in a second longitudinal zone for at least the reasons discussed above in connection with claim 72. Accordingly, the applicant respectfully submits that independent claim 38 and all claims dependent thereon are in condition for allowance.

The applicant respectfully submits that independent claims 46 and 54 are also allowable over the art of record for at least the reasons provided above in connection with claim 38. Accordingly, independent claims 46 and 54 and all claims dependent thereon are in condition for allowance.

In view of the foregoing, the applicant respectfully requests reconsideration of this application. If there are any remaining matters that the examiner would like to discuss, the examiner is invited to contact the undersigned representative at the telephone number set forth below.

Respectfully submitted,

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